

## **IN THE CLAIMS**

1. (Previously Presented) An automated method for controlling environmental parameters in a defined environment, said method comprising the steps of:

measuring values of temperature, relative humidity, and wind velocity in said environment;

converting values of temperature measured at corresponding values of relative humidity to values of perceived temperature at a constant reference value of relative humidity; and

controlling said environmental parameters based on said values of perceived temperature.

2. (Previously Presented) The method of claim 1, wherein said defined environment comprises a chicken house and said perceived temperature is representative of a temperature perceived by chickens in said chicken house.

3. (Previously Presented) The method of claim 2, wherein said perceived temperature is a function of a characteristic of said chickens.

4. (Previously Presented) The method of claim 2, wherein said step of controlling comprises activation and de-activation of fans and related equipment in said chicken house.

5. (Previously Presented) The method of claim 2, comprising the further steps of:

calculating an optimum perceived temperature based on a

characteristic of said chickens; and

calculating hot and cold stress limits for said chickens based on said optimum perceived temperature, wherein said hot and cold stress limits correspond to temperature values above and below said optimal perceived temperature, respectively.

6. (Previously Presented) The method of claim 5, comprising the further step of calculating stress levels experienced by said chickens as a function of said stress limits and said said perceived temperature.

7. (Previously Presented) The method of claim 6, comprising the further step of calculating a value of accumulated stress of said chickens during a production cycle.

8. (Currently Amended) The method of claim 3 ~~or claim 5~~, wherein said characteristic is selected from the group of characteristics consisting of:

age of said chickens; and

weight of said chickens.

9. (Previously Presented) The method of claim 1, wherein said perceived temperature comprises a temperature perceived by a living being in said defined environment, said living being selected from the group of living beings:

human beings;

animals;

plants;

crops;  
pigs; and  
poultry.

10. (Previously Presented) An apparatus for controlling environmental parameters in a defined environment, said apparatus comprising:

    a memory unit for storing data and instructions to be performed by a processing unit; and

    a processing unit coupled to said memory unit, said processing unit programmed to:

        obtain measured values of temperature, relative humidity, and wind velocity relating to said environment;

        convert values of temperature measured at corresponding values of relative humidity to values of perceived temperature at a constant reference value of relative humidity; and

        provide said values of perceived temperature for controlling said environmental parameters.

11. (Previously Presented) The apparatus of claim 10, further comprising an interface for providing said values of perceived temperature to an environmental controller.

12. (Previously Presented) The apparatus of claim 10, further comprising a controller for controlling said environmental parameters in response to said values of perceived temperature.

13. (Previously Presented) The apparatus of claim 10, wherein said defined environment comprises a chicken house and said perceived temperature is representative of a temperature perceived by chickens in said chicken house.

14. (Previously Presented) The apparatus of claim 13, wherein said processing unit is further programmed to calculate said perceived temperature as a function of a characteristic of said chickens.

15. (Previously Presented) The apparatus of claim 13, wherein said processing unit is programmed to activate and de-activate fans and related equipment in said chicken house.

16. (Previously Presented) The apparatus of claim 13, wherein said processing unit is further programmed to:

calculate an optimum perceived temperature based on a characteristic of said chickens; and

calculate hot and cold stress limits for said chickens based on said optimum perceived temperature, wherein said hot and cold stress limits correspond to temperature values above and below said optimal perceived temperature, respectively.

17. (Previously Presented) The apparatus of claim 16, wherein said processing unit is further programmed to calculate stress levels experienced by said chickens as a function of said stress limits and said perceived temperature.

18. (Previously Presented) The apparatus of claim 17, wherein said processing unit is further programmed to calculate a value of accumulated stress of said chickens during a production cycle.

19. (Currently Amended) The apparatus of claim 14 ~~or claim 16~~, wherein said characteristic is selected from the group of characteristics consisting of:

age of said chickens; and  
weight of said chickens.

20. (Previously Presented) The apparatus of claim 10, further comprising a manual input for a user to input an indication of prevailing environmental conditions based on a visual observation of said defined environment.

21. (Previously Presented) The apparatus of claim 10, wherein said perceived temperature comprises a temperature perceived by a living being in said defined environment, said living being selected from the group of living beings:

human beings;  
animals;  
plants;  
crops;  
pigs; and  
poultry.

22. (Previously Presented) A computer program product comprising a computer readable medium having a computer program recorded therein for controlling environmental parameters in a defined environment, said computer program product comprising:

computer program code means for measuring values of temperature, relative humidity, and wind velocity in said environment;

computer program code means for converting values of temperature measured at corresponding values of relative humidity to values of perceived temperature at a constant reference value of relative humidity; and

computer program code means for outputting said values of perceived temperature for controlling said environmental parameters.

23. (Previously Presented) The computer program product of claim 22, further comprising computer program code means for controlling said environmental parameters in response to said values of perceived temperature.

24. (Previously Presented) The computer program product of claim 22, wherein said defined environment comprises a chicken house and said perceived temperature is representative of a temperature perceived by chickens in said chicken house.

25. (Previously Presented) The computer program product of claim 24, wherein said perceived temperature is calculated as a function of a characteristic of said chickens.

26. (Previously Presented) The computer program product of claim 24, further comprising

computer program code means for activating and de-activating fans and related equipment in said chicken house.

27. (Previously Presented) The computer program product of claim 24, further comprising computer program code means for:

calculating an optimum perceived temperature based on a characteristic of said chickens; and

calculating hot and cold stress limits for said chickens based on said optimum perceived temperature, wherein said hot and cold stress limits correspond to temperature values above and below said optimal perceived temperature, respectively.

28. (Previously Presented) The computer program product of claim 27, further comprising computer program code means for calculating stress levels experienced by said chickens as a function of said stress limits and said perceived temperature.

29. (Previously Presented) The computer program product of claim 28, further comprising computer program code means for calculating a value of accumulated stress of said chickens during a production cycle.

30. (Currently Amended) The computer program product of claim 25 or claim 27, wherein said characteristic is selected from the group of characteristics consisting of:

age of said chickens; and

weight of said chickens.

31. (Previously Presented) The computer program product of claim 22, wherein said perceived temperature comprises a temperature perceived by a living being in said defined environment, said living being selected from the group of living beings:

human beings;

animals;

plants;

crops;

pigs; and

poultry.

32. (Previously Presented) The method of claim 1, comprising the further step of determining wind chill based on said measured values of temperature and wind velocity, and wherein said perceived temperature is calculated as a function of said wind chill-compensated value of said measured temperature.

33. (Previously Presented) The method of claim 32, wherein said wind chill (WC) is calculated according to the equation  $WC = V^p(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, a -and p are values -dependent upon occupants of said defined environment.

34. (Previously Presented) The apparatus of claim 10, wherein said processing unit is programmed to determine wind chill based on said measured values of temperature and wind velocity, and calculate said perceived temperature as a function of said wind chill-compensated

value of said measured temperature.

35. (Previously Presented) The apparatus of claim 34, wherein said wind chill (WC) is calculated according to the equation  $WC = V^p(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, e and p are values dependent upon occupants of said defined environment.

36. (Previously Presented) The computer program product of claim 22, further comprising computer program code for determining wind chill based on said measured values of temperature and wind velocity, and computer program code for calculating said perceived temperature as a function of said wind chill-compensated value of said measured temperature.

37. (Previously Presented) The computer program of claim 36, wherein said wind chill (WC) is calculated according to the equation  $WC = V^p(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, a and p are values dependent upon occupants of said defined environment.

38. (Previously Presented) An automated method for controlling environmental parameters in a chicken house, said method comprising the steps of:

measuring values of temperature, relative humidity, and wind velocity in said chicken house;

determining wind chill as a function of said measured values of temperature and wind velocity, and at least one characteristic of chickens in said chicken house;

determining values of perceived temperature at a constant reference value of relative humidity as a function of corresponding wind chill-compensated values of temperature measured at corresponding values of relative humidity and at least one characteristic of chickens in said chicken house; and

controlling said environmental parameters based on said values of perceived temperature.

39. (Previously Presented) The method of claim 38, wherein said wind chill (WC) is calculated according to the equation  $WC = V^P(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, a and p are values dependent upon the age or weight of the chickens in said chicken house.

40. (Previously Presented) An apparatus for controlling environmental parameters in a chicken house, said apparatus comprising:

a memory unit for storing data and instructions to be performed by a processing unit; and

a processing unit coupled to said memory unit, said processing unit programmed to:

obtain measured values of temperature, relative humidity, and wind velocity in said chicken house;

determine wind chill as a function of said measured values of temperature and wind velocity, and at least one characteristic of chickens in said chicken house;

determine values of perceived temperature at a constant reference value of relative humidity as a function of corresponding wind chill-compensated values of temperature measured at corresponding values of relative humidity and at least one characteristic of chickens in said chicken house; and

control said environmental parameters based on said values of perceived temperature.

41. (Previously Presented) The apparatus of claim 40, wherein said wind chill (WC) is calculated according to the equation  $WC = V^p(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, a and p are values dependent upon the age or weight of the chickens in said chicken house.

42. (Previously Presented) A computer program product comprising a computer readable medium having a computer program recorded therein for controlling environmental parameters in a chicken house, said computer program product comprising:

computer program code means for measuring values of temperature, relative humidity, and wind velocity in said chicken house;

computer program code means for determining wind chill as a function of said measured values of temperature and wind velocity, and at least one characteristic of chickens in said chicken house;

computer program code means for determining values of perceived temperature at a constant reference value of relative humidity as a function of corresponding wind chill-compensated values of temperature measured at corresponding values of relative

humidity and at least one characteristic of chickens in said chicken house; and  
computer program code means for outputting said values of  
perceived temperature for controlling said environmental parameters.

43. (Previously Presented) The computer program product of claim 42, wherein said wind chill (WC) is calculated according to the equation  $WC = V^P(a + bT + cT^2 + dT^3 + eT^4)$ , wherein T = measured temperature, V = wind velocity, and a, b, c, d, a and p are values dependent upon the age or weight of the chickens in said chicken house.